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THE RELATIONSHIP BETWEEN SYNDICATED LOANS AND STOCK MARKET MOVEMENTS: A CASE STUDY FOR TURKEY*

SENDİKASYON KREDİLERİ İLE HİSSE SENEDİ PİYASASI ARASINDAKİ İLİŞKİNİN ANALİZİ: TÜRKİYE İÇİN BİR DURUM ÇALIŞMASI

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ABSTRACT

Syndicated loans are a special kind of credit agreement where a large number of banks from different countries can participate. Syndicated loans are an essential source of external funding, especially for developing countries. Syndicated loan reflects the trust of international financial institutions (sources of funds) and markets in banks and the banking sector. The banks that participate in the loan and amount of loan are also taken into consideration by the investors. According to the efficient market hypothesis, it is assumed that the new information about the companies will affect the stock value. In this context, syndicated loans are likely to lead to changes in stocks. In this study, the possible relationship between the total syndicated loans provided by the banking sector and the equity markets was investigated in Turkey. In this context, the data obtained from the Banking Regulation and Supervision Agency and Borsa İstanbul and the Granger Causality, Johansen Cointegration, and VECM analyzes were performed. Results show that there are short and long-run relations between variables. This relationship, which is bi-directional between the banking index and syndicated loans, is negative in the long-run. The relationship between BIST100 and the use of the syndicated loan is positive but double-sided.

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ÖZET

Sendikasyon kredileri, farklı ülkelerden çok sayıda bankanın katılım sağladığı özel bir kredi sözleşmesidir. Sendikasyon kredileri, özellikle, gelişmekte olan ülkeler için önemli bir dış finansman kaynağıdır. Bankaların, uluslararası kredi kuruluşlardan sağladıkları sendikasyon kredileri, uluslararası finans kurumlarının (fon kaynakları) ve fon piyasalarının kredi sağlanan bankaya ve genel anlamda o ülkedeki bankacılık sektörüne olan güvenini yansıtmaktadır. Sendikasyon kredisine katılan bankalar ve sağlanan kredi tutarı yatırımcılar tarafından aldıkları kararlar için önemli bir gösterge olabilmektedir. Etkin piyasalar hipotezine göre, şirketler hakkındaki yeni bilgilerin hisse senedi fiyatlarını etkileyeceği varsayılmaktadır. Bu bağlamda, sendikasyon kredilerinin hisse senetlerinde fiyat hareketlerine yol açması beklenir. Bu çalışmada, Türkiye'de bankacılık sektörünün sağladığı sendikasyon kredileri ile hisse senedi piyasası endeksleri arasındaki ilişki araştırılmıştır. Bu kapsamda Bankacılık Düzenleme ve Denetleme Kurumu ile Borsa İstanbul'dan elde edilen veriler üzerinden Granger NedenselliK, Johansen Eşbütünleşme ve VECM analizleri gerçekleştirilmiştir. Sonuçlar değişkenler arasında kısa ve uzun dönemli ilişkiler olduğunu göstermektedir. Bankacılık sektörü endeksi ile sendikasyon kredileri arasında iki yönlü olan bu ilişki uzun vadede negatiftir. BIST100 ile sendikasyon kredisi kullanımı arasındaki ilişki pozitif ve çift yönlüdür.

1. INTRODUCTION

Syndication loans consist of two or more banks that jointly fund a specified amount (usually high amounts) of credit. The syndication process usually begins with a leading bank that establishes relationships and negotiates the terms of the contract with the debtor. The leading bank then invites other banks to join the syndicate and inspects the debtor on behalf of all banks in the syndicate. Both scanning and monitoring services are provided in syndicated loans. The lead arranger is usually a relationship bank that has access to specific information about the borrower and can, therefore, effectively scan the loan. Ongoing monitoring is encouraged by the relatively large share of the loan of the leading bank. Sufi (2005) shows that if the borrower requires more intensive monitoring activity, the leading regulator has a more significant stake in credit syndicates. Furthermore, the structure of the syndicated loan requires continuous monitoring through a series of financial and non-financial contracts that require the borrower to disclose the private information regularly to all union members (Allen and Gottesman, 2006).

Syndicated loans are an essential financing tool for banks as well as other institutions that need financing. Syndicated loans have the advantages of providing large-scale financing needs from a single source, low costs, flexibility of contracts, relatively low credit procedures, and comfortable and fast loan provision from international finance sources (Pişkin, 2016, p.4).

Dennis and Mullineaux (2000) indicate that broker banks have several potential motivations for syndication loans. Regulators limit the maximum size of any credit to a portion of the bank's equity. Syndication may also reflect a voluntary diversification motive, a mechanism to manage interest rate risk, or a strategy to increase wage income. Participating banks may be motivated by a lack of resources in specific geographical regions or by a desire to save on certain types of transactions or resource costs.

Syndicated loans are also an important indicator of trust for the bank or company and country, especially in the international markets. Profile of international banks participating in syndication is also an essential factor in terms of the extent of this trust. With the loans provided through syndication, banks support the financing of commercial transactions of mainly exporting companies operating in the real sector and contribute to the development of the country's economy.

Syndicated loans are also preferred as a risk management tool. Syndication is one way for banks to manage credit risk. In a syndicated loan, the leading bank negotiates the agreement with the borrower and then decides which part of the loan is to be sold to other participant loans. Thus, the bank may limit the size of a single loan by complying with legal capital requirements and by diversifying its credit portfolio by taking smaller shares in multiple syndicated loans (Dennis and Mullineaux, 2000).

Credit risk is transferred from the banking sector to other financial sectors in the credit syndication where commercial banks, investment banks, financial companies, insurance companies, and investment funds can invest as participants (lenders). With this transfer transaction, credit risk is more effectively distributed within the economy. At the same time, financial institutions have risk diversification in their credit portfolios, and they are less likely to be affected by possible credit crises (Kutlu, Demirci & Güner, 2012, p. 3).

According to Thomson Reuters (2018, September) data, in the first nine months of the year, syndicated lending is reached $3.56 trillion with 7100 completed agreements globally and despite a 9% decrease in the number of agreements, increased by 5% in terms of the dollar. The United States was the largest share of the global credit market, exceeding $ 2.0 trillion for the first time in three quarters with an 8% increase year-over-year. Table 1 shows the deals carried out by the leader bank. Accordingly, JP Morgan made 1017 syndication deals amounting to USD 352.155 billion in the first nine months of 2018. The total market share is 10, 8%.

Table 1: Global Syndicated Loans Volume by Book runner

Rank	Book runner	Volume (bill. $)	Deals	% Share
1	JPMorgan	352,155	1,017	10.8
2	Bank of America Merrill Lynch	326,110	1,029	10.0
3	Citi	192,461	565	5.9
4	Wells Fargo Securities	183,003	679	5.6
5	MUFG	138,705	879	4.3
6	Mizuho	127,182	595	3.9
7	Barclays	110,821	437	3.4
8	Goldman Sachs	102,343	410	3.1
9	RBC Capital Markets	97,644	420	3.0
10	Deutsche Bank	96,471	379	3.0

Source: Dialogic (2018), https://www.dealogic.com/insight/first-9-months-loan-highlights/

Table 2 shows the statistical information of the syndicated loan agreements in the European, Middle Eastern, and African (EMEA) countries. EMEA syndicated loans were € 358,300 million in the first half of 2018, with 538 contracts.

Table 2: Syndicated Loan Agreements in EMEA Countries

	H1 2018				H1 2017		
Firm	**Rank**	**Mkt Share (%)**	**Volume (EUR Mln)**	**Deal Count**	**Prev Rank**	**Prev Mkt Share (%)**	**Mkt Share Chg. (%)**
BNP Paribas	**1**	**7.456**	**26,713**	**144**	**2**	**5.907**	**1.549**
Credit Agricole CIB	**2**	**5.414**	**19,400**	**120**	**5**	**4.674**	**0.740**
Deutsche Bank	**3**	**4.389**	**15,727**	**75**	**3**	**5.819**	**-1.430**
HSBC	**4**	**4.363**	**15,632**	**113**	**1**	**6.862**	**-2.499**
Citi	**5**	**4.325**	**15,495**	**78**	**13**	**2.628**	**1.697**
Societe Generale	**6**	**4.150**	**14,871**	**95**	**7**	**4.406**	**-0.256**
UniCredit	**7**	**4.060**	**14,547**	**98**	**6**	**4.410**	**-0.350**
JP Morgan	**8**	**3.966**	**14,209**	**64**	**9**	**3.127**	**0.839**
ING Groep	**9**	**3.839**	**13,755**	**104**	**8**	**3.592**	**0.247**
Bank of America Merrill Lynch	**10**	**3.063**	**10,975**	**55**	**4**	**5.211**	**-2.148**
Sumitomo Mitsui Financial	**11**	**2.944**	**10,548**	**50**	**20**	**1.563**	**1.381**
Goldman Sachs	**12**	**2.882**	**10,328**	**44**	**15**	**2.528**	**0.354**
Natixis	**13**	**2.712**	**9,717**	**63**	**10**	**2.851**	**-0.139**
Commerzbank	**14**	**2.607**	**9,340**	**69**	**11**	**2.780**	**-0.173**
Banco Santander	**15**	**2.550**	**9,135**	**67**	**17**	**2.159**	**0.391**
Mitsubishi UFJ Financial Group Inc	**16**	**2.430**	**8,705**	**46**	**18**	**2.105**	**0.325**
Barclays	**17**	**2.317**	**8,302**	**60**	**12**	**2.629**	**-0.312**
NatWest Markets	**18**	**2.250**	**8,062**	**48**	**16**	**2.233**	**0.017**
RBC Capital Markets	**19**	**1.849**	**6,623**	**28**	**34**	**0.841**	**1.008**
Mizuho Financial	**20**	**1.813**	**6,494**	**44**	**24**	**1.382**	**0.431**

TOTAL		**100%**	**358,300**	**538**		**100%**	

Source: (Bloomberg, 2018)

Table 3 shows the cross-sectoral distribution of syndicated loans in EMEA countries. Syndicated loans were the highest in financial and industrial sectors, with a share of 18.8% and 16.7%, respectively, of € 81,073 million and € 71,683 million.

Table 3: Sectoral Distribution in EMEA Countries

Industry	Volume (EUR Mln)	% Of Total	% YOY Change
Financials	**81,073**	**18.8%**	**12.9%**
Industrials	**71,683**	**16.7%**	**-3.3%**
Consumer Discretionary	**50,148**	**11.7%**	**-18.4%**
Communications	**43,510**	**10.1%**	**35.4%**
Materials	**39,332**	**9.1%**	**-23.5%**
Consumer Staples	**35,044**	**8.1%**	**-59.2%**
Energy	**34,186**	**7.9%**	**-35.5%**
Utilities	**26,512**	**6.2%**	**13.9%**
Health Care	**17,545**	**4.1%**	**-36.8%**
Government	**16,049**	**3.7%**	**142.3%**
Technology	**15,302**	**3.6%**	**-20.7%**

Source: (Bloomberg, 2018)

Table 4 shows the global syndicated loans scorecard prepared by Thomson Reuters. According to the table, in the first half of 2018, the volume of global syndicated loans reached USD 2.5 trillion as a result of 4,604 agreements. The rate of increase is 2.4% compared to the first half of 2017. In the Americas, the country with the highest number of syndicated loan agreements was the U.S., while Germany became the European continent. Turkey is the first among Eastern European countries, which are Russia, Czechia, and Poland. Turkey has launched a syndicated loan agreement of 19 units in the first half of 2018. Compared to the same period of the previous year, Turkey's syndicated loan volume growth rate of 14.4%. When considering entire Europe, Turkey is located at eight after Switzerland.

Table 4: Thomson Reuters Global Syndication Loans Scorecard in the first half of 2018

	1/1/2018 - 6/30/2018		**1/1/2017 - 6/30/2017**		*% Chge in*
Region/Nation	*Proceeds (US$m)*	*# of Issues*	*Proceeds (US$m)*	*# of Issues*	*Proceeds*
Global	**2,466,944.5**	**4,604**	**2,408,372.2**	**5,314**	2.4
Americas	1,658,651.5	2,402	1,519,868.8	2,603	9.1
North America	1,626,292.5	2,355	1,498,478.3	2,550	8.5
United States of America	1,505,459.8	2,102	1,381,337.7	2,254	9.0
Canada	120,832.7	259	117,140.6	298	3.2
Central America	12,296.6	31	7,398.8	18	66.2
Mexico	11,866.1	28	5,504.5	12	115.6
South America	20,062.4	16	7,974.4	26	151.6
Chile	1,252.7	3	1,897.2	9	-34.0
Colombia	-	-	300.0	1	-
Europe	421,773.2	540	468,074.2	785	-9.9
Western Europe	393,534.4	498	441,681.8	732	-10.9
Germany	55,133.9	66	45,003.6	95	22.5
France	77,010.9	94	70,036.1	161	10.0
United Kingdom	94,838.0	101	123,529.5	128	-23.2
Italy	27,685.5	38	38,533.4	62	-28.2
Spain	42,138.5	80	46,932.8	121	-10.2
Netherlands	27,259.2	26	33,804.1	41	-19.4
Switzerland	19,466.2	14	21,869.9	17	-11.0
Sweden	4,894.5	11	18,235.3	21	-73.2

Luxembourg	10,477.1	9	12,314.9	17	-14.9
Norway	8,225.0	16	3,619.4	19	127.2
Denmark	10,330.2	7	5,900.9	8	75.1
Eastern Europe	28,238.8	42	26,392.4	53	7.0
Turkey	13,461.1	19	11,764.6	23	14.4
Czech Republic	1,224.5	3	3,390.8	3	-63.9
Russian Federation	3,162.8	8	6,606.9	10	-52.1
Poland	5,344.2	5	3,129.2	6	70.8
Africa/Middle East/Central Asia	43,241.7	46	37,192.6	63	16.3
Middle East	35,795.0	24	23,153.8	31	54.6
Kuwait	1,325.0	3	200.0	1	562.5
Bahrain	-	-	325.0	2	-
Sub-Saharan Africa	5,463.1	18	10,764.4	25	-49.2
South Africa	1,943.4	9	2,178.4	9	-10.8
Ghana	1,500.0	1	500.0	1	200.0
Asia-Pacific (ex Central Asia)	218,489.6	619	263,197.7	854	-17.0
North Asia	113,508.0	360	139,362.3	460	-18.6
Hong Kong	47,323.0	89	60,383.6	103	-21.6
China	44,510.1	193	63,468.6	270	-29.9
Taiwan	18,408.6	76	8,985.7	63	104.9
South Asia	15,048.3	85	36,101.0	153	-58.3
India	13,833.3	83	34,451.0	151	-59.8
Southeast Asia	41,772.5	78	43,145.0	120	-3.2
Singapore	23,412.4	36	20,786.6	45	12.6
Indonesia	5,511.0	23	12,066.3	32	-54.3
Malaysia	9,736.2	10	5,172.9	18	88.2
Vietnam	2,234.0	4	1,003.8	7	122.6
Philippines	-	-	1,459.9	6	-
Australasia	48,160.8	97	44,589.5	121	8.0
Australia	45,556.8	86	39,911.1	101	14.1
New Zealand	2,384.0	9	3,768.4	18	-36.7
Japan	124,788.5	1,020	120,038.9	1,041	4.0

Source: (Thomson Reuters, 2018)

Although we see examples more frequently in developed countries, syndication loans are also an essential source of external financing for the banking sector in developing countries. Syndicated loans are generally used by financial institutions and particularly by banks in Turkey, and are used for foreign trade financing in general. "The Banking Sector Restructuring Program" was put into practice after the 2001 financial crisis. Tagged this program after Turkey's improved operating and financial indicators of the bank facilitated their access to foreign funding sources in this context, it has become possible by providing loans at a high amount (Sarigul, 2015). In recent years, syndicated loans provided by the banks in Turkey with broad international participation and high amounts show the confidence and power of the banks themselves. Besides, it can be considered as an indicator of investors' trust in the economy and banking sector. Successful completion and renewal of syndicated loans increase the bank's credibility in the market and ensures that investors consider this situation in their investment preferences and decisions. Demirguç-Kunt and Levine (1996) state that most of the stock market indicators are highly related to the developments in the banking sector. For this reason, most of the well-developed stock markets have a sound banking sector.

Turkey's banking index, BIST100 index, and the banking sector with syndicated loans from July 2003 to July 2018 date trend graph shown in Figure 1. According to the graph, it is observed that syndicated loans have risen steadily. However, it is seen that banking and BIST 100 indices increased in parallel with this increase. On the other hand, there has been a significant increase in the upward trend in the use of syndicated loans in the Turkish banking sector since 2015. It is thought that the healthy ratios and transparent balance sheets of Turkish banks have an impact on the emergence of this situation.

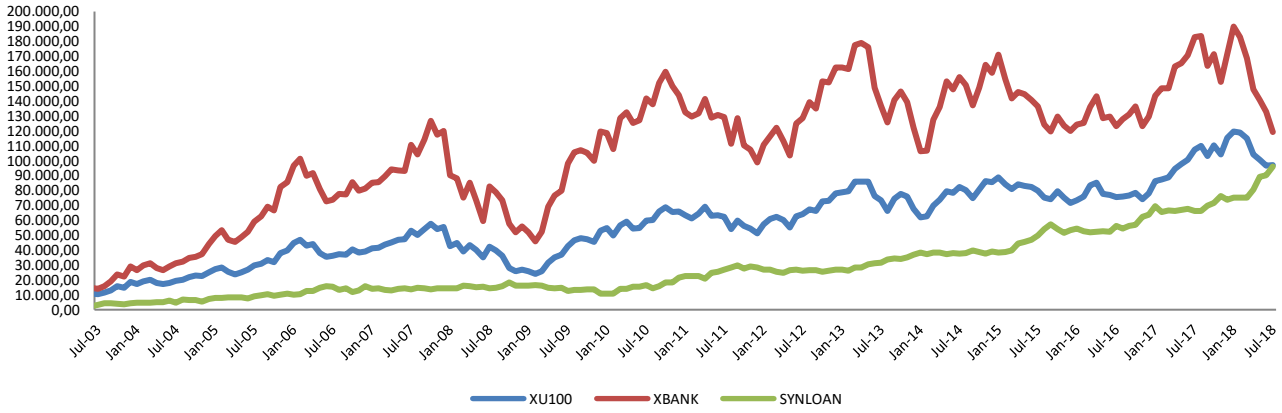

Figure 1. BIST Banking Index, BIST100 and Syndicated Loan Tendency between 2003 and 2018

In Turkey recently, on September 27, Akbank has provided 980 million Dollars, and on November 21, Vakıfbank has provided 855 million Dollars syndicated loans. According to Bloomberg's data, international lenders have used syndication loans of approximately $21 billion to Turkish banks and insurance companies since 1999. This amount is about 16 percent of total loans to similar companies in Europe, the Middle East, and Africa. According to the data compiled by Bloomberg, Standard Chartered Plc, Citigroup Inc., ING Groep NV, and BNP Paribas S.A. helped organize the most syndicated loans for Turkish financial institutions (Bloomberg, 2018).

Such a global and large-scale money trade, transfer, or flow does not have an impact or relationship on stock markets is to ignore the financial and economic theories. Schumpeter (1912; 1934) mentioned the relationship between financial development and economic growth and argued that a well-functioning financial system should encourage economic growth (through bank loans) through the selection of productive investments in innovative technologies and efficient allocation of resources. Since then, the financial system has improved significantly, and scientific studies have been conducted on the relationship between financial development and economic growth. The recent pioneering works of these studies are Goldsmith (1969), McKinnon (1973) and Shaw (1973). On the other hand, it is also important to examine the relations between the developments in the banking sector and stock markets. The banking sector and stock market developments are elements of financial development.

Gertler and Rose (1991) stated that the development of the banking sector might increase the financial intermediation ratio in terms of the size and liquidity of financial institutions. This increase reduces financial costs and increases the balance sheet power of banks. Capital market development also increases the liquidity in the financial market, allowing for an increase in bank loans and a shift towards banks' external financing sources. Rousseau and Wachtel (2001) state that the stock market and banking sector developments affect economic growth. Coval and Thakor (2005) argue that banks are relatively better at reducing market frictions about mobilization and allocation of resources for more productive activities. Lerskullawat (2017) expresses that the lending channel is an important monetary policy transmission tool that explains the impact of monetary policy on bank credit collateral. Due to the important role of the banking sector and financial markets in bank loans, the development of financial markets such as the banking sector and capital market development can have significant impacts on the banking sector and the credit market.

Even though this importance of syndicated loans, it is not finding enough space in the researches in the finance discipline. On the other hand, the studies in the related literature approached the subject in terms of functioning, structure, pricing, practices in times of crisis, and syndication loan announcements of the banks in the context of the reactions of stock markets.

The number of studies investigating the relationship between the syndicated loans provided by the banks in the economies and the stock markets is quite limited. Syndication loans serve as a hybrid of the private sector and public sector debt. Due to the trust that it reflects and its relations with other economic and financial indicators and the support provided to sectoral and general economic development suggest that it is an ethical issue in all aspects.

In this study, the possible relations between the BIST Banking Index - Total syndicated loans provided by the banking sector and BIST 100 index - Total syndicated loans provided by the banking sector were examined in Turkey. Improvements in the general economic level are expected as a result of directing syndicated loans provided by banks to companies. In this context, with the increase in confidence and prosperity, investors can invest more in the stock market.

2. LITERATURE

Although studies on this subject are limited in the literature, it is seen that current studies aim to measure the reaction of the stock market to syndication announcements (Megginson, Poulsen & Sinkey, 1995; Çukur, Eryiğit & Duran, 2008; Godlewski, Fungáčová & Weill, 2011; Godlewski, 2014; Sarıgül, 2015; Sakarya & Sezgin, 2015; Marshall, McCann & McColgan, 2018). The results of these studies show that the syndication loan announcements, in general, have a positive effect on the stock market.

The number of studies investigating the relationship between the loans/syndicated loans of the banks operating in economies and the value of organized stock markets operating within that economy is relatively low. Kim & Ramon (1994) examined the interaction between bank loans and stock prices. In the period from January 1970 to May 1993 in Japan, they determined that bank loans had positive effects on stock prices.

Megginson, Poulsen & Sinkey (1995) examined the stock market response to bank loans. From 1966 to 1989, they used event-study methods to measure the impact of the 774 syndicated loan announcements on the welfare of shareholders by fifteen U.S. central banks. As a result of their work, syndicated loans granted to both private and public debtors in foreign industrial countries have been associated with insignificant stock returns if loans do not contain any information other than the issuance of a credit-priced loan.

Ibrahim (2006) investigated the dynamic interactions between bank loans and stock prices and whether bank loans played a role in the transmission of financial shocks to the real sector. They found that bank loans positively responded to the increase in stock prices, but they did not have any effect on bank loans. He also concluded that bank loans did not transfer stock market shocks to the real sector.

Ferreira & Matos (2007) examine the impact of the linkages between banks and firms on the leading arranger bank selection and credit pricing in the global syndicated loan market. They examine the cases in which the bank is represented by the board of directors in the debtor company or directly or indirectly holds its shares. These links have a positive and significant impact on the choice of a firm's leading regulatory bank. Besides, they determined that banks demand spreads with higher interest rates and that they face less credit risk after being lent to the companies with which the bank owns shares. The results show that the effect of banks on firms is mostly for the benefit of banks. Therefore, there is a conflict of interest between the role of the lender and the content of the company.

Godlewski & Weill (2008) analyzed the determinants of credit facilities and lending decisions in their study of 50 developing countries. They determined that credit features, financial development, banking regulations, and legal institutions play an important role in credit merger decisions.

Haselman & Wachtel (2009) analyzed the role of syndicated loan markets in financial market development in 24 European countries by regression analysis. They found that credit margins were negatively associated with market size in small markets and positively related to large markets. Syndicated loans play a different role in smaller-scale financial systems than smaller financial systems. While credit syndications in small markets replace missing public debt markets, credit syndicate in large financial markets make it possible for regulators to spread the risk more effectively. As a result, they have determined that the characteristics of loan contracts regulated by small foreign banks are significantly different.

Godlewski, Fungáčová & Weill (2011) investigated the stock market response to the borrowing agreements in Russia. They conducted an event study to check whether the use of credit announcements resulted in abnormal returns using a sample of Russian stock exchange companies issuing syndicated loans or bonds between June 2004 and December 2008. As a result of the analysis, they determined that the stock market has a negative reaction to loan agreements. Moreover, they did not find any significant difference between syndicated loans and bond announcements. As a result, it is stated that Russian companies may prefer methods to limit their dependence on foreign debts.

Godlewski (2014) investigated the impact of bank loan announcements on the value of the borrower during the late 2000s using 253 large loan agreements in France. They found that there was no significant stock market reaction to the bank loan announcements

during the debt period, but was a critical and negative situation during the financial crisis. Such announcements of banks receiving large loans financed by international credit pools contribute to the value of the borrower even during the crisis.

Marshall, McCann & McColgan (2018) examined the response of the stock exchange to banks and firms' debt issuances, which were announced to the public in 2008 during the global financial crisis. Before the crisis, they determined that stock prices only reacted positively to the bank credit agreement announcements. As a result, they stated that bank loans before and after the 2008 global financial crisis became less informative as a sign of the creditworthiness of borrowers.

3. METHOD AND FINDINGS

In this study, the possible relationship between the syndicated loans taken by the bank and the BIST index has tried to put forward in Turkey. The data used in the study were obtained from the Banking Regulation and Supervision of Agency (BRSA) and The Central Bank of the Republic of Turkey (CBRT) databases.

The four different variables used in the study are shown in Table 5. The syndication loan is a type of loan in which a bank that meets under the leadership of a bank, or a group of similar institutions lending money, is co-financed by the party requesting the loan. Different loan providers provide co-financing for reasons such as the high amount of loan demanded and the risk of non-repayment of the loan being shared. The interest rate in syndication loans is determined by adding the interest rate (spread) applied to the reference interest rate (Libor, Euribor, etc.) according to the risk degree of the institution to be loaned (BRSA, 2018).

The data covers the period from December 2002 to July 2018. According to the data of BRSA, non-finance loans were obtained as of the third month of 2004. In the study, the ADF Unit Root Test for stability analyzes, Granger Causality Analysis for causality analysis, and Johansen Cointegration Analysis for Cointegration Analysis have used.

Table 5: Variables

Variable Name	Variable Symbol	Covered Period	Data Source
Syndicated Loans (For Foreign Trade Finance)	DTFAO	12/2002-07/2018 Monthly	BRSA Website
Syndicated loans (Not for Foreign Trade Finance)	DTFOLMA	03/2004-07/2018 Monthly	BRSA Website
Borsa Istanbul 100 Index	BIST100	12/2002-07/2018 Monthly	Borsa İstanbul
Borsa Istanbul Banking Index	XBNK	12/2002-07/2018 Monthly	Borsa İstanbul

Unit Root Test

In an econometric analysis based on vector autoregressive model (VAR) and its restricted form, error correction models (VECM), unit root test should be applied to time series first. Although different methods have been used in the literature, Augmented Dickey-Fuller (1981) unit root test was applied in the determination of unit root for the data. The regression used in the ADF test can be expressed in the following manner:

$$\Delta Y_t = \mu + \gamma Y_{t-1} + \sum_{j=1}^{p} \alpha_j \Delta Y_{t-j} + \beta t + \omega_t$$

When μ the drift term in the equation is, t it represents the time trend and p is the maximum delay length. The equation is used to estimate whether $\gamma = 0$. The ADF test statistic is calculated by dividing's estimate by the standard error. The cumulative distribution of ADF statistics is provided by Fuller (1976). If the calculated ADF statistic is less than the critical value in the Fuller table, Y 'is said to be stationary or zero integral (Bahmani- Oskooee, 1993). Figure 2 shows the trend observed by the variables used in the study over the years. Based on these graphs, it can be said that the level values of the series are not stationary.

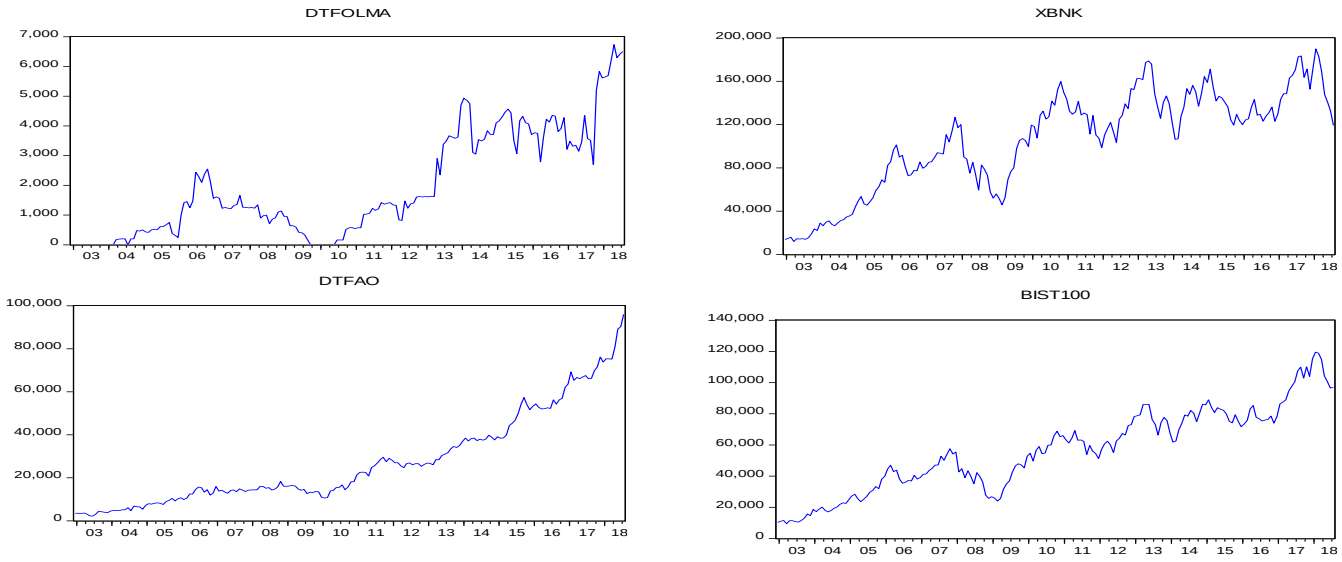

Figure 2. The level values of the series.

According to the results in Table 6, series are not stationary at level (H_0: Accept), and the first difference I (1) is stationary (H_0: Reject). Akaike Information Criteria (AIC) was used as the lag criterion, and the maximum lag length was determined automatically by the Eviews 10 statistical analysis program.

Table 6: Unit Root Test Results

I(0)									
Test Statistics									
Series	**No Intercept**			**Intercept**			**Intercept and Trend**		
DTFAO	5,574			3.778			1.609		
	%1	**%5**	**%10**	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**
	-2.577	-1.942	-1.615	-3.465	-2.876	-2.575	-4.007	-3.434	-3.140
DTFOLMA	1.075			-0.070			-2.377		
	%1	**%5**	**%10**	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**
	-2.577	-1.942	-1.615	-3.465	-2.877	-2.575	-4.007	-3.434	-3.140
XBANK	-0.130			-2.153			-2.596		
	%1	**%5**	**%10**	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**
	-2.577	-1.942	-1.610	-3.465	-2.876	-2.575	-4.007	-3.434	-3.140
BIST100	1.090			-1.133			-3.376		
	%1	**%5**	**%10**	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**
	-2.577	-1.942	-1.610	-3.465	-2.876	-2.575	-4.007	-3.434	-3.140
I(1)									
Test Statistics									
Series	**No Intercept**			**Intercept**			**Intercept and Trend**		
DTFAO	-2.337			-7.878			-13.613		
s	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**
	-2.577	-1.942	-1.615	-3.465	-2.877	-2.575	-4.008	-3.434	-3.141
DTFOLMA	-11.308			-11.448			-11.500		
s	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**
	-2.577	-1.942	-1.615	-3.465	-2.877	-2.575	-4.008	-3.434	-3.141
XBANK	-13.316			-13.322			-13.359		
s	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**
	-2.577	-1.942	-1.615	-3.546	-2.911	-2.590	-4.097	-3.476	-3.166
BIST100	-4.392			-4.737			-4.694		
s	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**	**%1**	**%5**	**%10**
	-2.577	-1.942	-1.610	-3.465	-2.876	-2.575	-4.011	-3.435	-3.141

Next, lag lengths were determined in the study. As a result of the analysis, the lag lengths were calculated as "1" as seen in Table 7.

Table 7: Lag Length Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-3984.010	NA	4.61e+16	44.04431	44.07965	44.05864
1	-3508.937	934.3976*	2.53e+14*	38.83908*	38.94511*	38.88207*
2	-3506.303	5.121638	2.57e+14	38.85418	39.03089	38.92582
3	-3504.347	3.761337	2.62e+14	38.87676	39.12416	38.97706
4	-3501.932	4.590031	2.67e+14	38.89427	39.21236	39.02323
5	-3500.041	3.551751	2.73e+14	38.91758	39.30635	39.07519
6	-3496.577	6.430067	2.75e+14	38.92350	39.38296	39.10978

Granger Causality Analysis

The existence and direction of the relationship between variables can be determined by the Granger (1969) test. Granger Causality test is based on testing the significance of the lagged values of the independent variable in the regression equation (cited above: Erdinç, 2008, p. 11). In this test, the interaction between the variables can be analyzed simultaneously. The Granger causality test is carried out with the following models:

$$X_t = \sum_{i=1}^{m} \alpha_i X_{t-i} + \sum_{i=1}^{m} \beta_i Y_{t-i} + u_t$$

$$Y_t = \sum_{i=1}^{m} \theta_i Y_{t-i} + \sum_{i=1}^{m} \gamma_i X_{t-i} + u_t$$

If the addition of lagged (past) values of Y to the estimation of X in equation 1 increases the predictive performance of X, Y is called a cause of X. This means; Y is affecting X, but X is not a definite cause of Y (Değer & Demir, 2015, p.12).

$Ho{:}\beta_i = 0$: There is no causal relationship between Y and X

$H_1{:}\ \beta_i \neq 0$: There is a causal relationship between X and Y

Table 8: Granger Causality Test Results

Null	Causality Direction			F	P	Decision
The XBNK variable is not the Granger cause of the DTFAO variable.	XBNK	→	DTFAO	2.47032	0.0090	Reject*
The variable DTFAO is not the Granger cause of the XBNK variable.	DTFAO	→	XBNK	2.37600	0.0120	Reject
The variable XBNK is not the Granger cause of the DTFOLMA variable.	XBNK	→	DTFOLMA	2.97188	0.0020	Reject
The variable DTFOLMA is not the Granger cause of the XBNK variable	DTFOLMA	→	XBNK	1.39571	0.1881	Not Reject
The BIST100 variable is not the Granger cause of the DTFAO variable.	BIST100	→	DTFAO	2.66554	0.0049	Reject
The DTFAO variable is not the Granger cause of the BIST100 variable.	DTFAO	→	BIST100	2.11885	0.0260	Reject
The DTFOLMA variable is not the Granger cause of the BIST100 variable.	DTFOLMA	→	BIST100	1.44228	0.1665	Not Reject
The BIST100 variable is not the Granger cause of the DTFOLMA variable.	BIST100	→	DTFOLMA	3.71536	0.0002	Reject

** "**Reject**" means that the Null hypothesis is rejected. And there is a Granger causality relationship between variables.*

As shown in Table 8, a bi-directional relationship was found between the BIST Banking index and BIST 100 index and syndicated loan for the external financing level. A one-way relationship between the syndicated loan level and the BIST Banking and BIST 100 index, which is not for external financing, is directed towards syndicated loan use. The existence of these relationships was also confirmed by

the Granger Causality analysis based on the Johansen cointegration analysis and the subsequent VECM error correction model.

Johansen Cointegration Analysis

Johansen's (1988) method is a standard model used in testing the existence of cointegration relations between variables in econometric analysis literature. In this analysis, there are no more than two cointegrated vectors in terms of three variables that have a unit root. In other words, if there is a variable with a unit root, then the n-1 cointegrated vector will appear. Johansen test allows for the estimation of all cointegrated vectors. As in the Dickey-Fuller test, the presence of unit roots implies that standard asymptotic distributions are not valid (Dwyer, 2015, p.14). Johansen recommends two different maximum likelihood ratios. Equations of this statistical value can be expressed as follows:

$$\lambda_{Trace}(r) = -T\sum_{i=r+1}^{g}\ln(1-\hat{\lambda}_i)$$

$$\lambda_{Max}(r, r+1) = -T\ln(1-\hat{\lambda}_{r+1})$$

Firstly Trace and Maximum Eigenvalue statistics are calculated and then compared to the appropriate "Critical Values" in the Johansen method. Johansen cointegration analysis was used to investigate the long-term cointegration relationship in this study. In order to perform analysis according to the Johansen cointegration method, the series should be stationary at the first difference *I(1)* (Bulut & Özdemir, 2012, p.14).

Table 9: Cointegration Test Results

DTFAO*XBNK						
Hypothesis	**Trace Statistics**	**Critical value (%5)**	**Prob.**	**Maximum Eigenvalue**	**Critical value (%5)**	**Prob.**
H_0: r=0	31.19600	15.49471	0.0001	14.26460	14.26460	0.0009
H_0: r≤1	6.683192	3.841466	0.0097	3.841466	3.841466	0.0097
DTFOLMA*XBNK						
Hypothesis	**Trace Statistics**	**Critical value (%5)**	**Prob.**	**Maximum Eigenvalue**	**Critical value (%5)**	**Prob.**
H_0: r=0	46.17528	20.26184	0.0000	28.02977	15.89210	0.0004
H_0: r≤1	18.14551	9.164546	0.0008	18.14551	9.164546	0.0008
DTFAO*BIST100						
Hypothesis	**Trace Statistics**	**Critical value (%5)**	**Prob.**	**Maximum Eigenvalue**	**Critical value (%5)**	**Prob.**
H_0: r=0	41.87850	12.32090	0.0000	25.31423	11.22480	0.0001
H_0: r≤1	16.56427	4.129906	0.0001	16.56427	4.129906	0.0001
DTFOLMA*BIST100						
Hypothesis	**Trace Statistics**	**Critical value (%5)**	**Prob.**	**Maximum Eigenvalue**	**Critical value (%5)**	**Prob.**
H_0: r=0	48.48166	20.26184	0.0000	31.94465	15.89210	0.0001
H_0: r≤1	16.53701	9.164546	0.0018	16.53701	9.164546	0.0018

Table 9 shows the results of the cointegration analysis. According to the results, there are two cointegration relationships between BIST Banking Index-Syndication Loan and BIST 100 Index-Syndication Loan. We can say that the time series of the variables move together in the long run.

According to the cointegration equations in Table 10, syndicated loans have a negative impact on the bank index in the long run. One unit increase in syndicated loans decreased the BIST Banking index by approx. 0.95%, while the BIST 100 index increased by approx. 1.11%.

Table 10: Cointegration Vectors

Normalized cointegrating coefficients (Parentheses are standard errors. * is coefficient.)		
XBNK	DTFAO	@TREND
1.000000	0.948858*	8.936371*
	(1.39930)	(12.8224)
BIST100	DTFAO	@TREND(03M01)
1.000000	-1.106698*	9.251706*
	(0.68709)	(6.35342)

Vector Error Correction Model (VECM) Results

After determining the long-term relationships between the variables in the study, the response of the model to the deviations from the long-term equilibrium was tested with the error correction mechanism. As it is known, in order for Johansen cointegration analysis to be valid, the series must be stationary at first differences. The first difference may cause the loss of information in the long-term series. VECM is used to eliminate this problem. When the VECM is statistically significant and negative, the tendency towards re-equilibrium will occur against the distances from the long-term equilibrium. In Table 11 we see that there is a long-term relationship between the variables when the error term is negative and statistically significant (Çetinkaya & Türk, 2014). According to the results, the model is significant and when the coefficient of error terms is examined, it is seen that approximately 12% of the deviation from the previous period has improved in the next period.

Table 11: Error Correction Mechanism Results

Variable	Coefficient	Standard error	t-statistic	Prob.
D(XBNK)	-0.059391	0.011883	-4.997780	0.0000
RESID(-1)	-0.116540	0.058869	-1.979644	0.0492
C	540.3110	117.3920	4.602622	0.0000

In the study, also Granger Causality analysis was performed based on the VECM model because of the cointegration relationship. Analysis results are as shown in Table 12. The results support the results of the standard Granger causality analysis.

Table 12: Granger Causality Test Based on VECM Model Results

Dependent Variable DTFAO			
Exclude	Chi-Square	DF	Prob.
XBNK	12.40203	1	0.0004
All	12.40203	1	0.0004
Dependent Variable: XBNK			
Exclude	Chi-Square	DF	Prob.
DTFAO	6.867767	1	0.0088
All	6.867767	1	0.0088
Dependent Variable: DTFAO			
Exclude	Chi-Square	DF	Prob.
BIST100	10.40135	1	0,0013
All	10.40135	1	0,0013
Dependent Variable: BIST100			
Exclude	Chi-Square	DF	Prob.
DTFAO	5.897825	1	0.0152
All	5.897825	1	0.0152

4. CONCLUSION

Restrictions on interstate banking make the wealth of small and medium-sized banks closely related to their local and regional economies. Syndicated loans give these banks the chance to lend to customers in regions and sectors where they cannot have the opportunity to relate (Simon, 1993, p.24). When the literature is examined, it is noteworthy that the role of banks in the economy has been discussed, especially in the evaluation of monetary transmission mechanisms but very limited in the context of relations with financial markets. Therefore, the dynamic interactions between stock prices and bank loans have not been sufficiently studied and discussed.

The performance of countries' stock markets depends on many factors and is highly sensitive to the economic and political conditions of the countries. If the general economic situation of a country is good, its stock exchange usually yields good returns and vice versa. The literature stated that financial development has a strong positive effect on economic growth. Financial markets overcome problems such as transaction costs and asymmetric information by reducing liquidity problems and improving the allocation of capital. This positive effect on economic

growth is achieved by more physical capital accumulation and productivity increase (Rioja & Valev, 2011).

Syndicated loans, which are one of the essential external financing sources for banking and other sectors, are more widely used in developed countries. Syndicated loans are also an essential source of external financing for banks operating in Turkey. Syndicated loans are generally used by financial institutions and banks in particular in Turkey.

The number of studies that investigate the relationship between syndicated loans provided by banks and stock market movements is quite limited in finance and financial markets literature. Factors such as the confidence that syndication loans reflect and the support provided to sectoral and general economic development suggest that examining the relationship with other economic and financial indicators is a moral issue in all aspects.

Besides, investors take into account the information available in the markets and decide the risks related to the future. They seek to upgrade their welfare levels. For investors, it is essential to take into account all factors that are likely to affect earnings as the most crucial output of information is expected earnings.

In this study, unlike other studies in the literature, the dynamic relations between syndicated loans and stock market movements, which are one of the success indicators of the banking sector and used in the funding of the real sector, were examined. Therefore, this study has a different purpose and fiction than the studies conducted based on testing the validity of the efficient market hypothesis and the reflection of the performance of the banking sector on stock performances.

In this study, the relationship between syndicated loans provided by the financial sector in Turkey and BIST100 indices were examined. According to the results, the relationship between BIST Indices and syndication usage levels was determined in the short and long run. The direction of relations is double-sided. In the long run, the level of use of the syndicated loan has a positive effect on the BIST 100 Index and a negative effect on the BIST Banking Index. The increase in banks' syndication loan purchases and debt items in their balance sheets. As a result of the increase in the level of borrowing perceived negatively by investors, sales to banking stocks are likely to come. The increase in BIST 100 is thought to be due to the use of syndication loans for the economy and companies.

REFERENCES

Allen, L., & Gottesman, A. A. (2006). The İnformational Efficiency Of The Equity Market As Compared To The Syndicated Bank Loan Market. Journal Of Financial Services Research, 30(1), 5-42.

Bahmanı-Oskooee, M. (1993). Black Market Exchange Rates Versus Official Exchange Rates İn Testing Purchasing Power Parity: An Examination Of The Iranian Rial. Applied Economics, 25(4), 465-472.

Bloomberg (2018), Https://Www.Bloomberg.Com/News/Articles/2018-08-13/Stanchart-Citi-Lead-List-Of-Top-Loan-Arrangers-To-Turkish-Banks

Brsa (2018), Turkish Banking Sector Interactive Monthly Bulletin, Http://Ebulten.Bddk.Org.Tr/Abmvc/En (Date Of Access:08/07/2018)

Bloomberg, Https://Data.Bloomberglp.Com/Professional/Sites/10/Bloomberg-Global-Syndicated-Loans-League-H1-2018.Pdf (Date Of Access:07/08/2018)

Bulut, Ş. & Özdemir, A. (2012). The Relation Between The Istanbul Stock Exchange And The Dow Jones Industrial: The Cointegration Analysis. Journal Of Management And Economics: Celal Bayar University Journal Of The Faculty Of Economics And Administrative Sciences, 19(1), 211-224.

Coval, J. D., & Thakor, A. V. (2005). Financial İntermediation As A Beliefs-Bridge Between Optimists And Pessimists. Journal Of Financial Economics, 75(3), 535-569.

Çetınkaya, A. T. & Türk, E. (2014). The Effects Of Savings And Investments On Economic Growth; The Case Of Turkey (1975 - 2012). Science Journal Of Turkish Military Academy, 24(2), 45-60.

Çukur, S., Eryiğit, M., & Duran, S. (2008). Sendikasyon Ve Seküritizasyon Kredileri Anlaşmalarının Borçlanan Bankaların Hisse Fiyatlarına Etkileri. Iktisat Isletme Ve Finans, 23(264), 58-78.

Dealogıc (2018), Https://Www.Dealogic.Com/İnsight/First-9-Months-Loan-Highlights, (Accessed On:11/04/2018)

Değer O. Ve Demir M. (2015), Reel Efektif Döviz Kuru Ve Dış Ticaret Hacmi Arasındaki Nedensellik İlişkisi: Türkiye Örneği, Finans Politik & Ekonomik Yorumlar, Cilt: 52 Sayı: 604 7

Dennıs, S. A., & Mullineaux, D. J. (2000). Syndicated Loans. Journal Of Financial İntermediation, 9(4), 404-426.

Dıckey, D. A., & Fuller, W. A. (1981). Likelihood Ratio Statistics For Autoregressive Time Series With A Unit Root. Econometrica: Journal Of The Econometric Society, 1057-1072.

Dwyer, G. P. (2015). The Johansen Tests For Cointegration. White Paper. Http://Jerrydwyer.Com/Pdf/Clemson/Cointegration.Pdf

Erdinç, Z. (2008), "İkiz Açıklar Hipotezinin Türkiye'de 1950-2005 Yılları Arasında Eşbütünleşme Analizi Ve Granger Nedensellik Testi İle İncelenmesi", Anadolu Üniversitesi Sosyal Bilimler Dergisi, 8(1), 209-222

Ferreıra, M. A. & P. P. Matos (2007). When Banks Are İnsiders: Evidence From The Global Syndicated Loan Market. University Of Southern California Working Paper.

Fuller, Wayne A., Introduction To Statistical Time Series (New York: John Wiley, 1976)

Gertler, M., & Rose, A. (1991). Finance, Growth, And Public Policy. Working Paper Wps 814. Washington, Dc: The World Bank.

Godlewskı, C. J. (2014). Bank Loans And Borrower Value During The Global Financial Crisis: Empirical Evidence From France. Journal Of International Financial Markets, Institutions, And Money, 28, 100-130.

Godlewskı, C. J., & Weill, L. (2008). Syndicated Loans İn Emerging Markets. Emerging Markets Review, 9(3), 206-219.

Godlewskı, C., Fungáčová, Z., & Weill, L. (2011). Stock Market Reaction To Debt Financing Arrangements İn Russia. Comparative Economic Studies, 53(4), 679-693.

Goldsmıth, R. W., (1969), Financial Structure And Development. New Haven: Yale University Press.

Granger, C. W. (1969). Investigating Causal Relations By Econometric Models And Cross-Spectral Methods. Econometrica: Journal Of The Econometric Society, 424-438.

Haselmann, R. F. H. & Wachtel, P., (2009), Syndicated Loans, Foreign Banking, And Capital Market Development. Available At Ssrn: Https://Ssrn.Com/Abstract=1342612 Or Http://Dx.Doi.Org/10.2139/Ssrn.1342612

Kım, S. B. & Ramon M. (1994), "Stock Prices And Bank Lending Behavior İn Japan," Frbsf Economic Review 1: 31-42.

Kutlu, H. A., Demirci, N. S., & Güner, M. (2012). Risk Yönetim Aracı Ve Finansman Alternatifi Olarak Sendikasyon Kredileri. Uluslararası İstanbul Finans Kongresi, 13-14 Haziran, Okan Üniversitesi.

Lerskullawat, A. (2017). Effects Of The Banking Sector And Capital Market Development On The Bank Lending Channel Of Monetary Policy: An Asean Country Case Study. Kasetsart Journal Of Social Sciences, 38(1), 9-17.

Marshall, A., Mccann, L., & Mccolgan, P. (2018). The Market Reaction To Debt Announcements: U.K. Evidence Surrounding The Global Financial Crisis. The British Accounting Review.

Mckınnon, R.I. (1973). Money And Capital İn Economic Development. Washington D.C.: Brookings Institution

Meggınson, W. L., Poulsen, A. B., & Sinkey, J. F. (1995). Syndicated Loan Announcements And The Market Value Of The Banking Firm. Journal Of Money, Credit And Banking, 27(2), 457-475.

Pışkın, F. (2016). Türk Bankacilik Sektörü Tarafindan Alinan Sendikasyon Kredilerinde Spreadi Belirleyen Faktörler. Journal Of The Faculty Of Economics/Iktisat Fakültesi Mecmuasi, 66(2).

Rousseau, P. L., & Wachtel, P. (2001). Inflation, Financial Development And Growth. In Economic Theory, Dynamics And Markets (Pp. 309-324). Springer, Boston, Ma.

Sakarya, Ş., & Sezgin, H. (2015). Sendikasyon Kredisi Kullanımının Bankaların Hisse Senedi Getirilerine Etkisi: Olay Çalışması Yöntemiyle Bist'de Bir Uygulama. Prof. Dr. Şakir Sakarya/Hasan Sezgin, 5.

Sarıgül, H. (2015), Sendikasyon Kredisi Kullanım Duyurularının Bankaların Hisse Senedi Getirilerine Etkisi. Finansal Araştırmalar Ve Çalışmalar Dergisi, 7(12), 113-129.

Schumpeter, J. (1912/1934). The Theory Of Economic Development. Cambridge, Ma: Harvard University Press.

Shaw, E. (1973). Financial Deepening İn Economic Development, (New York: Oxford University Press).

Sufı, A. (2005). Agency And Renegotiation İn Corporate Finance: Evidence From Syndicated Loans. Unpublished Working Paper. Massachusetts Institute Of Technology.

Thomson Reuters (2018), Http://Dmi.Thomsonreuters.Com/Content/Files/Global_Loans_Review_3q2018.Pdf

Yavuz, N. Ç. (2011). Türkiye'de Turizm Gelirlerinin Ekonomik Büyümeye Etkisinin Testi: Yapısal

Kırılma Ve Nedensellik Analizi. Doğuş Üniversitesi Dergisi, 7(2), 162-171.

Ibrahım, M. H. (2006). Stock Prices And Bank Loan Dynamics In A Developing Country: The Case Of Malaysia. Journal Of Applied Economics, 9(1).

Rıoja, F., & Valev, N. (2014). Stock Markets, Banks And The Sources Of Economic Growth İn Low And High İncome Countries. Journal Of Economics And Finance, 38(2), 302-320.

Sımon, K. (1993). Why Do Banks Syndicate Loans?. New England Economic Review, (Jan), 45-52.